MYCOTAXON

Volume 108, pp. 123–125 *April–June 2009*

A new hyphomycete species from Guangxi, China

Kai Zhang, Li-Guo Ma & Xiu-Guo Zhang *

zhxg@sdau.edu.cn, sdau613@163.com
Department of Plant Pathology, Shandong Agricultural University
Taian, 271018, China

Abstract — A new species of dematiaceous hyphomycetes is described. *Linkosia mori* is characterized by absence of conidiophores and distoseptate conidia. A new record for China, *Pleurotheciopsis websteri*, was found from the same area. The type specimens are deposited in the Herbarium of the Department of Plant Pathology, Shandong Agricultural University (HSAUP) and HMAS (Mycological Herbarium, Institute of Microbiology, Chinese Academy of Sciences).

Key words — taxonomy, anamorphic fungi

Introduction

The genus *Linkosia,* which was erected by Hernández-Gutiérrez & Sutton (1997), differs from *Sporidesmium* and the other related genera by its conidiophores that are reduced to monoblastic conidiogenous cells and the conidia are solitary and distoseptate (Subramanian 1992, Hernández-Gutiérrez & Sutton 1997). *Stanjehughesia* Subram. and *Janetia* M.B. Ellis are genera related to *Linkosia* by features such as absence of conidiophores, lageniform conidiogenous cells directly formed from superficial mycelium, however, the conidia in these genera are euseptate (although *J. longispora* P.M. Kirk is distoseptate).

Worldwide, the genus *Linkosia* contains only five species, of which three have been described from China (Wu & Zhuang 2005). *Linkosia coccothrinacis* and *L. ponapensis* are reported to survive on rotten leaves while the other three previously described species occur as saprophytes on dead branches. Our study proposes a fourth, new *Linkosia* species from tropical forests also discovered on dead branches. We also note another hyphomycete species new to China.

Taxonomic description

Linkosia mori K. Zhang & X.G. Zhang, **sp. nov.** FIGURE 1
MycoBank mb 512314

* *Corresponding author*

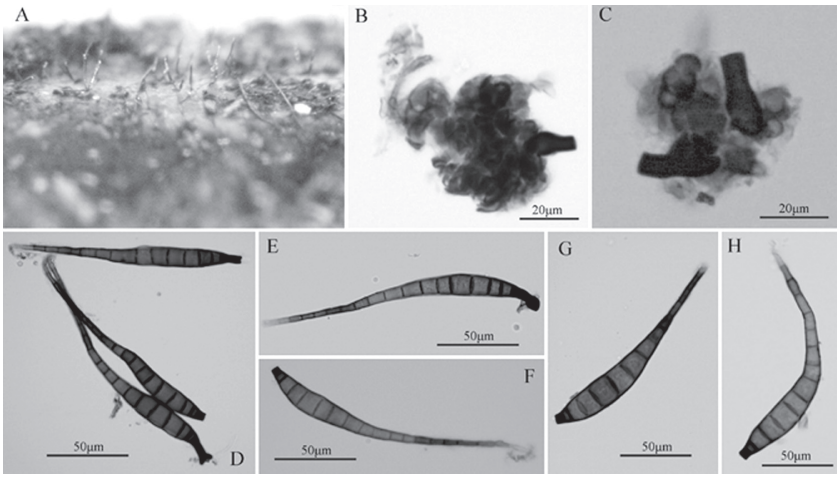

Fig. 1. *Linkosia mori*. A. Colonies on submerged wood. B–C. Conidiophore cells. D–H. Conidia and two attached conidiophores cells.

Coloniae effusae, brunneae. Mycelium superficiale, ex hyphis ramosis, septatis, brunneis vel atrobrunneis, laevibus, 2–3.5 μm crassis compositum. Conidiophora nulla. Cellula conidiogena monoblastica, solitaria, simplicia, lageniformia vel ampulliformia, brunnea vel atro-brunnea, laevia, 13–17 × 7–9 μm, ad apicem 4–5 μm crassa. Conidia holoblastica, solitaria, recta vel leviter curvata, obclavata vel obclavata-rostrata, 15–21-distoseptata, pallide brunnea vel brunnea, laevia, 122–177 × 12–16 μm; cellula apicalis subhyalina, cellula basalis cylindrica vel conico-truncata, ad basim 3.5–5.5 μm crassa.

Holotype: On dead branches of *Morus alba* L., Natural Reserve of Shiwandashan, Guangxi Province, China, May 12, 2007, Kai Zhang,HSAUPVII$_{0\text{-}ZK}$0321-2 (ISOTYPE HMAS189369)..

Etymology: In reference to the host genus, *Morus.*

Colonies effuse, brown. Mycelium superficial, composed of septate, brown to dark brown, smooth-walled hyphae, 2–3.5 μm thick. Conidiophores absent. Conidiogenous cells monoblastic, solitary, simple, lageniform or ampulliform, brown to dark brown, smooth, 13–17 × 7–9 μm, 4–5 μm wide at the truncate apex. Conidia holoblastic, solitary, straight or slightly curved, obclavate to obclavate-rostrate, 15–21-distoseptate, pale brown to brown, smooth, 122–177 × 12–16 μm; apical cells subhyaline, basal cell cylindrical, truncate, 3.5–5.5 μm wide.

The five species previously described in the genus include *Linkosia ponapensis* (Castañeda et al. 2000), *L. coccothrinacis* (Hernández-Gutiérrez & Sutton 1997), *L. multiseptum*, *L. fusiformis,* and *L. obclavata* (Wu & Zhuang 2005). *Linkosia mori* superficially resembles *L. obclavata* in conidial shape, but the conidia of *L. mori* are larger than those of *L. obclavata* (110–125 × 9–12 μm).

In addition, *L. obclavata* conidia have fewer septa (12–14) than those of *L. mori*. *L. mori* resembles *L. fusiformis* in conidial size, but the conidia of *L. fusiformis* are obclavate and have dark band between septa, whereas those of *L. mori* are obclavate and rostrate and lacking dark bands. A key is given to the six known taxa of *Linkosia*.

Key to described *Linkosia* species

1. Conidia with apical appendages ..... *L. ponapensis*
   Conidia without apical appendages 2
2. Conidia narrowly obclavate-rostrate 3
   Conidia obclavate 4
3. Conidia with 4–7-septa, 43.5–71.5 × 7–10.5 μm ..... *L. coccothrinacis*
   Conidia with 15–21-septa, 122–177 × 12–16 μm ..... *L. mori*
4. Conidia with 27–30-septa ..... *L. multiseptum*
   Conidia with less than 20-septa 5
5. Conidia with 15–20-septa, 100–160 × 13–15 μm ..... *L. fusiformis*
   Conidia with 12–14-septa, 110–125 × 9–12 μm ..... *L. obclavata*

New record from China

Pleurotheciopsis websterii Cazau, Aramb. & Cabello, 1993, Mycotaxon 46: 238.

On rotten wood of *Punica granatum* L., tropical forest of Damingshan, Guangxi province, China. May 13.2007, Kai Zhang, HSAUPVII$_{0\text{-}zk}$0424.

Acknowledgments

The authors are grateful to Dr. R.F. Castañeda Ruiz and Dr. Eric H.C. McKenzie for serving as pre-submission reviewers and for their valuable comments and suggestions. This project was supported by the National Natural Science Foundation of China (No. 30499340, 2006FY120100, 30770015).

Literature cited

Castañeda Ruiz RF, Decock C, Saikawa M, Gené J, Guarro J. 2000. *Polyschema obclaviformis* sp.nov., and some new records of hyphomycetes from Cuba. Cryptog. Mycol. 21: 215–220

Cazau MC, Arambarri AM, Cabello MN. 1993. New hyphomycetes from Santiago river. VI. (Buenos aires province, Argentina). Mycotaxon. 46: 235–240.

Hernández-Gutiérrez A, Sutton BC. 1997. *Imimyces* and *Linkosia*, two new genera segregated from *Sporidesmium* sensu lato, and redescription of *Polydesmus*. Mycol. Res. 101: 201–209.

Subramanian CV. 1992. A reassessment of *Sporidesmium* (hyphomycetes) and some related taxa. Proc. Indian Nat. Sci. Acad. B58: 179–190.

Wu WP, Zhuang WY. 2005. *Sporidesmium*, *Endophragmiella* and related genera from China. Fungal Diversity Research Series 15: 1–351.